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Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summany	Application No.	Applicant(s) Mennie et al.					
Office Action Summary	Examiner Au	Group Art Unit					
—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—							
Period for Response							
A SHORTENED STATUTORY PERIOD FOR RESPONSE IS SET TO EXPIRE MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.							
 Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a response be timely filed after SIX (6) MONTHS from the mailing date of this communication. If the period for response specified above is less than thirty (30) days, a response within the statutory minimum of thirty (30) days will be considered timely. If NO period for response is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication. Failure to respond within the set or extended period for response will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). 							
Status							
Responsive to communication(s) filed on $\frac{12/67/98}{}$							
☐ This action is FINAL.							
 Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 1 1; 453 O.G. 213. 							
Disposition of Claims							
Claim(s)	is/are pending in the application.						
	is/are withdrawn from consideration.						
☐ Claim(s) ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐	is/are allowed.						
Claim(s) — — — — —		is/are rejected.					
□ Claim(s)		is/are objected to.					
☐ Claim(s)							
Application Papers							
☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.							
☐ The proposed drawing correction, filed on is ☐ approved ☐ disapproved.							
☐ The drawing(s) filed on is/are objected to by the Examiner.							
☐ The specification is objected to by the Examiner.							
☐ The oath or declaration is objected to by the Examiner.							
Priority under 35 U.S.C. § 119 (a)-(d)							
 □ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 11 9(a)-(d). □ All □ Some* □ None of the CERTIFIED copies of the priority documents have been □ received. □ received in Application No. (Series Code/Serial Number) 							
☐ received in this national stage application from the International Bureau (PCT Rule 1 7.2(a)).							
*Certified copies not received:							
Attachment(s)							
☐ Information Disclosure Statement(s), PTO-1449, Paper No(s) ☐ Interview Summary, PTO-413						
Notice of References Cited, PTO-892	☐ Notice of Informal Patent Application, PTO-152						
☐ Notice of Draftsperson's Patent Drawing Review, PTO-948	□ Ot	her					
Office Action Summary							

U. S. Patent and Trademark Office PTO-326 (Rev. 3-97)

*U.S. GPO: 1997-417-381/62710 Part of Paper No._

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DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1-35 have been considered but are moot in view of the new ground(s) of rejection.

A. 35 USC 112 Rejections.

With respect to the term "not substantially more than about", which was indicated by the examiner as "a negative limitation" and "relative term", the applicants provide some supports from the specification on pages 2, 10, 61, 62, 63, 65, 78, 86 and 93. However, all of them do not really support for the claimed limitations. For example, the applicants' quotation, on page 2, lines 18-28 (specification), just mentions about the prohibition of the use of large size machines in banks and other finance institutions where space is limited in areas. Nothing specifies about the height or the depth or the width of the device is "not substantially more than about". Even the applicants attempt to point out the measurements of the device dimensions to compare with the smaller cross-sectional dimension of the smallest dimensioned bills, it is still not clear to one of ordinary skill in the art for the following reasons:

1. On page 5, the applicants state "the distance between the axes of rollers 223 and 241 can be approximated as 2.3 inches". Later, on the same page, the applicants contradictorily assert "the distance between the axes of the elements 223 and 241 is approximately 1.5 inches".

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2. Fig. 20 illustrates that rollers 223 and 241 are not in the same axe, thus the distance between them is incompatible to the width or the smaller cross-sectional dimension of the bill which is fed downward after being stripped by the rollers 220 as shown in this claimed figure.

Moreover, there is nothing in the specification to provide any indications as to what range of specific activity is covered by the term "about". Amgen v. Chuqai Pharmaceutical Co. Ltd., 927 F.2d 1200, 18 USPQ2d 1016 (Fed. Cir. 1991). For instance, "said height dimension being not substantially more than 4 times the smaller cross-sectional dimension of the smallest dimensioned bill" may be interpreted as the height dimension can be smaller than or equal to or twice greater than or three times greater than the smaller cross-sectional dimension of the smallest dimensioned bill. Hence, it is clearly that the term renders the claims indefinite.

In addition, claim 34 has neither been addressed in the applicants' response nor been amended. Therefore, the rejection of this claim under 35 USC 112 is still applicable.

For the foregoing reasons, it is believed that the rejections under 35 USC 112, second paragraph, should be sustained.

B. 35 USC 103 Rejections.

1. Regarding the phrase "design choice" that the examiner employed to reject the claims, the applicants contend the phase "appears nowhere in 35 USC 102 or 35 USC 103. This is not an authorized ground of rejection under the Statute". However, in *Gardner v.TEC Systems, Inc.*, 725 F.2d 1338, 220 USPQ 777 (Fed. Cir. 1984), *cert. denied*, 469 U.S. 830, 225 USQP 232 (1984), the Federal Circuit held that, where the only difference between the prior are and the claims was a

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recitation of relative dimensions of the claimed device and a device having the claimed relative dimensions would not perform differently than the prior art device, the claimed device was not patentably distinct from the prior art device. For instance, Roes teaches that his "transporting means is capable of accommodating the various width of currency notes used around the world" (col. 4, lines 29-31). The passage clearly means the modification of the size of the device is just a design choice and makes no difference in operation as comparing with the claimed device.

Similarly, Roes also discloses his currency note validator "is capable of processing a currency note in less than two seconds" (col. 3, lines 5-7) which can be interpreted as his device may process the currency note in a range of 1.9 seconds to even 0.06 seconds as claimed by using an AC high speed motor instead to generate an appropriate transport speed.

- 2. The applicants assert "[N]owhere does the Roes disclosure suggest that it is capable of identifying currency bills of different denominations". As admitted by the applicants, Roes <u>does</u> teach "the apparatus can be modified to accept currency notes from various countries and in various denominations" (col. 11, lines 2-4) (emphasis added) and it is not necessary to give any details of the modifications which have already met the claimed limitation.
- 3. The applicants further assert "[A]s indicated at column 11, lines 2-4 of Roes, the device is not capable of identifying bills of a plurality of currency systems or even of 'validating' bills from a plurality of currency systems" and then guess "[I]t may well be that the validator would forward notes to yet another apparatus for denominating, identifying, counting, or the like". In contrast, col. 11, lines 2-4 clearly states "the apparatus can be modified to accept **currency notes**

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from various countries" (emphasis added), in which "currency notes from various countries" fully refers to a plurality of currency systems. Furthermore, the Roes' device is provided for "validating the authenticity of a currency note submitted by a patron" (col. 1, lines 34-36) in which "validating the authenticity of a currency note" inherently means that the device is provided for identifying bills.

- 4. With respect to the PIN diodes pointed out by the examiner in the office action, the applicants state "[S]ince the *Roes et al.* device is not capable of discriminating or denominating bills, it cannot be fairly stated as the Examiner states in paragraph 6 of this office action, for example, that the PIN diodes comprise 'a discriminating unit'". It cannot be fairly stated that the PIN diodes or a discriminating unit should be capable of discriminating or denominating bills as alleged by the applicants since the claims merely recite that the discriminating unit is for "retrieving characteristic information from one or more bills", and this function is fully performed by the PIN diodes (i.e., PIN diodes generate a plurality of read signals corresponding to each track, with the amplitudes of read signals representing the intensity of the color or infrared spectral reflectance of a particular sample area on the note) (col. 11, line 68 col. 12, line 5).
- 5. In response to the applicants' question on "how the mounting of guide rails or substitution of a different entrance bezel to accommodate lesser width notes is related to the dimensions of the housing", it is noted that as discussed in B.1. above, as the device can be modified to accommodate the various width of currency notes used around the world, the housing

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included in the device should do so. Again, since the prior art has already met the limitations of the dimensions of the housing, it is not necessary to give any details of the modifications.

- 6. Regarding to claim 18, the applicants assert "there is no basis to assume that the spacing between wheels 22 in *Roes* is in any way related to 'the narrow dimension of a bill' as called for in claim 18". As Roes clearly shows in figure 3, the spacing between rollers 22 is less than the narrow dimension (i.e., the width) of bill 32.
- 7. Regarding claims 7 and 21, the acceptance band data in Roes is used to perform comparison with the readings from a particular note to validate the authenticity of the note, which is the same as in the claims.
- 8. Regarding to claims 8 and 22, Roes clearly shows in figure 6 the laterally spaced tracks on a current note (i.e., the claimed laterally displaced scanned patterns), each consisting of a plurality of sample areas from which optical reflectance readings have been scanned. These tracks are then compared with the corresponding tracks in the acceptance band data (i.e., the claimed laterally displaced master patterns) for validation (col. 12, 14-19).
- 9. In response to the applicants' arguments that "Roes does not teach that scanning of a segment of a bill is to begin at a predetermined distance inboard of a leading edge of the bill or teach any means for accomplishing this" and "[N]or is there any disclosure whatever in Roes of storing master patterns associated with scanning beginning at, before, or after certain predetermined distance from a leading edge of the bill", Roes discloses the bill is scanned beginning at predetermined distance from the leading edge to exit sensor 88 (col. 7, lines 11-15)

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and the scanning result is then compared with the associated upper and lower limits of the acceptance band data stored in EPROM 104 (col. 12, lines 7-17).

10. Regarding claims 27, 28-34 and 35, please see the discussion in B.1. and B.3. above.

Claim Rejections - 35 USC § 112

- 2. The following is a quotation of the second paragraph of 35 U.S.C. 112:
 - The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
- 3. Claims 1-35 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As to independent claims 1, 13 and 14, the term "being not substantially more than about" renders the claims indefinite since it is not only a negative limitation but also a relative term which has not been supported by the specification.

As to independent claim 18, the term "no greater than" renders the claim indefinite because it is a negative limitation which has not been supported by the specification.

As to independent claims 27 and 30, the term "being not substantially greater than about" renders the claims because it is not only a negative limitation but also a relative term which has not been supported by the specification.

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Consequently, the other claims (except claims 34 and 35) are indefinite because they depend upon the above independent claims and some of them also contain negative limitations and relative terminology.

As to independent claim 34, the term "said evaluation device" (lines 13-14) renders the claim indefinite because it lacks antecedent basis for that term. Consequently, claim 35 is indefinite as depending upon claim 34.

Claim Rejections - 35 USC § 103

- 4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
 - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 5. Claims 1-17 and 27-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Roes et al. (U.S. Patent No. 4,587,434).

As to claims 1-4 and 13-17, Roes discloses:

- a housing 12 inherently having a depth, width and height dimension (Fig. 1);
- a discriminating unit for retrieving characteristic information from one or more bills (i.e., PIN diodes for generating a plurality of read signals corresponding to each track, with the

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amplitudes of read signals representing the intensity of the color or infrared spectral reflectance of a particular sample area on the note) (col. 11, line 68 - col. 12, line 5);

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- a memory for storing master characteristic information associated with each genuine bill which the system is capable of identifying (i.e., EPROM 104 for storing acceptance band data associated with each valid note) (col. 12, lines 7-18);

- signal processing means for comparing said retrieved characteristic information with master characteristic information associated with at least one genuine bill (i.e., first and second comparison means for comparing the read signal with the acceptance band data) (col. 15, lines 19-58); said signal processing means generating an indication of the identity of said bill based on said comparison when said retrieved characteristic information sufficiently matches said master characteristic information (i.e., first and second comparison means, generating third validation signal means and generating pass signal means for generating a pass signal indicating the identity of the note based on the comparison when the first, second and third validation signals have been generated) (col. 15, 19-63).

Although Roes does not explicitly teach that the height, depth, and width dimensions of the housing are not substantially more than 4, 5 and 2 times the smaller and larger cross-sectional dimension of the smallest bill, respectively, or 10 inches and 12.5 inches, it would have been obvious to one of ordinary skill in the art that Roes can do so because: 1/ it is a design choice; 2/ the transport means of the housing in Roes is capable of accommodating the various widths of currency notes used around the world, for example, lesser width notes can be handled by

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mounting guide rails at appropriate locations and by substituting a different entrance bezel having a throat with appropriate width (col. 4, lines 29-39).

As to claims 5-6, the discriminating unit scans less than the entire bill (i.e., the optical scanning station 36 only scans along three laterally spaced tracks 42, 44 and 46 down the length of the note 32) (Figs. 3 and 6 and col. 4, lines 54-57).

As to claim 7, Roes teaches:

- memory EPROM 104 for storing master patterns (i.e., acceptance band data) associated with genuine bills, said master patterns corresponding to scanned patterns generated by the PIN diode (Figs 3 and 6 and col. 4, lines 54-57 and col. 12, lines 14-19).

As to claim 8, Roes teaches:

- means for comparing laterally displaced scanned patterns with laterally displaced master patterns and generating a pass signals based on the comparison when said scanned patterns sufficiently matches said master patterns (Figs. 3 and 6, and col. 12, lines 7-19 and col. 15, lines 19-63).

As to claims 9 and 12, Roes discloses:

- scanning a segment of said bill at a predetermined distance inboard of the leading edge of the bill (col. 7, lines 11-20);
- memory EPROM 102 stores the upper and lower limits for the reflectance readings associated with the scanning of the segment of the bill inherently having a given denomination

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beginning at the distance inboard of the leading edge of the bill (col. 12, lines 7-19 and col. 7, lines 11-20).

As to claim 10, Roes teaches:

- transport means for transporting bills, one at a time, along a transport path (col. 3, lines 49-51);

- a discriminating unit for retrieving characteristic information from one or more bills (i.e., PIN diodes for generating a plurality of read signals corresponding to each track, with the amplitudes of read signals representing the intensity of the color or infrared spectral reflectance of a particular sample area on the note) (col. 11, line 68 - col. 12, line 5);

- a memory for storing master characteristic information associated with each genuine bill which the system is capable of identifying (i.e., EPROM 104 for storing acceptance band data associated with each valid note) (col. 12, lines 7-18), said master characteristic information associated with laterally displaced scan assisting compensating for lateral displacement of the bill 32 (Figs. 3 and 6 and col. 4, lines 54-57 and col. 13, lines 7-10).

As to claim 11, it would have been obvious to one of ordinary skill in the art that Roes can transport the bills at a rate in excess of about 1,000 bills per minute because: 1/ it is a design choice; 2/ Roes also mentions about the transport speed of approximately 21.6 cm per second (col. 4, lines 17-20).

As to claim 27, Roes teaches:

- a housing 12 inherently having a depth, width and height dimension (Fig. 1);

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- a discriminating unit for retrieving characteristic information from one or more bills (i.e., PIN diodes for generating a plurality of read signals corresponding to each track, with the amplitudes of read signals representing the intensity of the color or infrared spectral reflectance of a particular sample area on the note) (col. 11, line 68 - col. 12, line 5);

- a memory for storing master characteristic information associated with each genuine bill which the system is capable of identifying (i.e., EPROM 104 for storing acceptance band data associated with each valid note) (col. 12, lines 7-18);

- signal processing means for comparing said retrieved characteristic information with master characteristic information associated with at least one genuine bill (i.e., first and second comparison means for comparing the read signal with the acceptance band data) (col. 15, lines 19-58); said signal processing means generating an indication of the identity of said bill based on said comparison when said retrieved characteristic information sufficiently matches said master characteristic information (i.e., first and second comparison means, generating third validation signal means and generating pass signal means for generating a pass signal indicating the identity of the note based on the comparison when the first, second and third validation signals have been generated) (col. 15, 19-63).

Although Roes does not explicitly teach that a footprint of the housing obtained by multiplying depth dimension by width dimension are not substantially greater than about 125 square inches, it would have been obvious to one of ordinary skill in the art that Roes can do so because: 1/ it is a design choice; 2/ the transport means of the housing in Roes is capable of

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accommodating the various widths of currency notes used around the world, for example, lesser width notes can be handled by mounting guide rails at appropriate locations and by substituting a different entrance bezel having a throat with appropriate width (col. 4, lines 29-39).

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As to claim 30, Roes discloses:

- a housing 12 inherently having a depth, width and height dimension (Fig. 1);
- a discriminating unit for retrieving characteristic information from one or more bills (i.e., PIN diodes for generating a plurality of read signals corresponding to each track, with the amplitudes of read signals representing the intensity of the color or infrared spectral reflectance of a particular sample area on the note) (col. 11, line 68 col. 12, line 5);
- a memory for storing master characteristic information associated with each genuine bill which the system is capable of identifying (i.e., EPROM 104 for storing acceptance band data associated with each valid note) (col. 12, lines 7-18);
- signal processing means for comparing said retrieved characteristic information with master characteristic information associated with at least one genuine bill (i.e., first and second comparison means for comparing the read signal with the acceptance band data) (col. 15, lines 19-58); said signal processing means generating an indication of the identity of said bill based on said comparison when said retrieved characteristic information sufficiently matches said master characteristic information (i.e., first and second comparison means, generating third validation signal means and generating pass signal means for generating a pass signal indicating the identity

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of the note based on the comparison when the first, second and third validation signals have been generated) (col. 15, 19-63).

Although Roes does not explicitly teach that the volume of the housing are not substantially greater than about 1,250 cubic inches, it would have been obvious to one of ordinary skill in the art that Roes can do so because: 1/ it is a design choice; 2/ the transport means of the housing in Roes is capable of accommodating the various widths of currency notes used around the world, for example, lesser width notes can be handled by mounting guide rails at appropriate locations and by substituting a different entrance bezel having a throat with appropriate width (col. 4, lines 29-39).

As to claims 28 and 31, it would have been obvious to one of ordinary skill in the art that the depth dimension of the housing in Roes is not substantially greater than about 12.5 inches because of design choice.

As to claims 29 and 33, it would have been obvious to one of ordinary skill in the art that the width dimension of the housing in Roes is not substantially greater than about 10 inches because of design choice.

As to claim 32, it would have been obvious to one of ordinary skill in the art that the height dimension of the housing in Roes is not substantially greater than about 10 inches because of design choice.

As to claim 34, Roes teaches:

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- a discriminating unit for retrieving characteristic information from one or more bills (i.e., PIN diodes for generating a plurality of read signals corresponding to each track, with the amplitudes of read signals representing the intensity of the color or infrared spectral reflectance of a particular sample area on the note) (col. 11, line 68 - col. 12, line 5);

- a memory for storing master characteristic information associated with each genuine bill which the system is capable of identifying (i.e., EPROM 104 for storing acceptance band data associated with each valid note) (col. 12, lines 7-18);

- signal processing means for comparing said retrieved characteristic information with master characteristic information associated with at least one genuine bill (i.e., first and second comparison means for comparing the read signal with the acceptance band data) (col. 15, lines 19-58); said signal processing means generating an indication of the identity of said bill based on said comparison when said retrieved characteristic information sufficiently matches said master characteristic information (i.e., first and second comparison means, generating third validation signal means and generating pass signal means for generating a pass signal indicating the identity of the note based on the comparison when the first, second and third validation signals have been generated) (col. 15, 19-63).

Although Roes does not explicitly teach the evaluation device is relatively compact, it would have been obvious to one of ordinary skill in the art that Roes can do so because of design choice.

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As to claim 35, it would have been obvious to one of ordinary skill in the art that Roes can inherently designate one or more of currency systems because: 1/ it is a design choice; 2/ the Roes' currency not validator device can be applied to any currency system used around the world, for example Hong Kong currency system (col. 4, lines 29-33) and British currency system (col. 11, lines 1-2).

6. Claims 18-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Roes et al. (U.S. Patent No. 4,587,434) in view of Nao et al. (U.S. Patent No. 4,487,306).

As to claim 18, Roes shows:

- a housing 12 (Fig. 1);
- an input bin (i.e., bezel 20) mounted to said housing 12 (Fig. 1);
- a transport path 18 for transporting bills through said housing 12 (Fig. 1);
- upper and lower rollers 22 having one portion extending into the input bin 20 and another portion extending into the transport path 18 (Fig. 1);
- pulleys 26 located along the transport path 18 and spaced apart from the upper and lower rollers 22 along the transport path 18 by a distance less than the narrow dimension of a bill 32 (Figs. 1 and 3);
- at least one a stacker wheel 22 (the last right one) having one portion extending into the transport path 18 and another portion extending into the place where the bills exit from the house 12, said stacker wheel 22 being located along the transport path 18 and spaced apart from the

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rollers 22 and the pulleys 26 by a distance inherently no greater than the narrow dimension of the bill 32 (Fig. 1).

However, Roes does not explicitly teach an output bin.

Nao teaches:

- storing portion 30 and safe 34 (i.e., the output bin) mounted to the housing of the automatic deposit machine (Fig. 2).

It would have been obvious to one of ordinary skill in the art that the Roes' system can include the output bin taught by Nao because: 1/ their inventions both relate to validating bills; 2/ the housing 12 in Roes inherently has an exit from which the bills 32 would come out after being processed along the transport path 18 and are then stored in the storing portion 30 and safe 34 in Nao; 3/ the combined system would complete the bill validation for storing the valid bills.

As to claims 19-20, Roes teaches:

- the discriminating unit scans less than the entire bill (i.e., the optical scanning station 36 only scans along three laterally spaced tracks 42, 44 and 46 down the length of the note 32) (Figs. 3 and 6 and col. 4, lines 54-57).

As to claim 21, Roes teaches:

- memory EPROM 104 for storing master patterns (i.e., acceptance band data) associated with genuine bills, said master patterns corresponding to scanned patterns generated by the PIN diode (Figs 3 and 6 and col. 4, lines 54-57 and col. 12, lines 14-19).

As to claim 22, Roes teaches:

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- means for comparing laterally displaced scanned patterns with laterally displaced master patterns and generating a pass signals based on the comparison when said scanned patterns sufficiently matches said master patterns (Figs. 3 and 6, and col. 12, lines 7-19 and col. 15, lines 19-63).

As to claims 23 and 26, Roes discloses:

- scanning a segment of said bill at a predetermined distance inboard of the leading edge of the bill (col. 7, lines 11-20);
- memory EPROM 102 stores the upper and lower limits for the reflectance readings associated with the scanning of the segment of the bill inherently having a given denomination beginning at the distance inboard of the leading edge of the bill (col. 12, lines 7-19 and col. 7, lines 11-20).

As to claim 24, Roes teaches:

- transport means for transporting bills, one at a time, along a transport path (col. 3, lines 49-51);
- a discriminating unit for retrieving characteristic information from one or more bills (i.e., PIN diodes for generating a plurality of read signals corresponding to each track, with the amplitudes of read signals representing the intensity of the color or infrared spectral reflectance of a particular sample area on the note) (col. 11, line 68 col. 12, line 5);
- a memory for storing master characteristic information associated with each genuine bill which the system is capable of identifying (i.e., EPROM 104 for storing acceptance band data

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associated with each valid note) (col. 12, lines 7-18), said master characteristic information associated with laterally displaced scan assisting compensating for lateral displacement of the bill 32 (Figs. 3 and 6 and col. 4, lines 54-57 and col. 13, lines 7-10).

As to claim 25, it would have been obvious to one of ordinary skill in the art that Roes can transport the bills at a rate in excess of about 1,000 bills per minute because: 1/ it is a design choice; 2/ Roes also mentions about the transport speed of approximately 21.6 cm per second (col. 4, lines 17-20).

Contact Information

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anh Hong Do whose telephone number is (703) 308-6720.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-3900.

February 12, 1999.

ANH HONG DO
PATENT EXAMINER

PRIMARY EXAMINER